## DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **BOLIVIA**

# STRATEGIC ENVIRONMENTAL ASSESSMENT EVALUATION OF THE NORTHERN CORRIDOR OF BOLIVIA FROM LA PAZ TO GUAYARAMERÍN

(TC-0210054-BO)

PLAN OF OPERATIONS

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ANNEX I Logical Framework Matrix

## BASIC SOCIOECONOMIC DATA

The basic socioeconomic data for Bolivia is available on the Internet at the following address:

http://www.iadb.org/res/index.cfm?fuseaction=externallinks.countrydata

## **ABBREVIATIONS**

CAF Corporación Andina de Fomento

COF/CBO Country Office in Bolivia FSO Fund for Special Operations GDP Gross Domestic Product

IDB Inter American Development Bank

IIRSA Regional Infrastructure Integration in South America

IMF International Monetary Fund

JSF Japan Special Fund

NGO Non Governmental Organization

RE1/FI1 Finance and Basic Infrastructure Division 1

SEA Strategic Environmental Assessment

SNC Servicio Nacional de Caminos

TC Technical Cooperation

WB World Bank

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#### TC-0210054-BO

### I. EXECUTIVE SUMMARY

**Beneficiary:** República de Bolivia

**Executing agency:** Servicio Nacional de Caminos (SNC)

Target Beneficiaries:

The direct beneficiary of the grant will be the *Servicio Nacional de Caminos* (SNC). Besides, the study is expected to benefit all the different stakeholders, including the weakest groups of the *Departamentos* of La Paz, Beni and Pando, with the development of a

framework intended to aid in sustainable development for the region.

Program Execution:

In order to maximize ownership, the executing agency will be the

SNC, which is the entity in charge of managing the primary highway network infrastructure. The Environmental Manager of the SNC will be the Project Coordinator and will be aided by technical support staff in assisting the consultants and the Bank throughout the Technical Cooperation Program's execution period. This execution arrangement will ensure permanent technical support for the consultants and will

enhance the prospect of effective knowledge transfer.

The Finance and Basic Infrastructure Division 1 (RE1/FI1) in the Bank, is responsible for managing the funds under this operation in accordance with usual Bank procedures. The Bank, through RE1/FI1 will select, contract and pay the consultants or consulting firms involved. The technical supervision of the Technical Cooperation Program will be undertaken by RE1/FI1 in coordination with the

Bank's Country Office in Bolivia (COF/CBO).

Financing: IDB: Fund for Special Operations (FSO): US\$250,000

IDB: Fund from Japan Special Fund (JSF): US\$750,000 Local Counterpart US\$100,000 Total: US\$1,100,000

Non reimbursable Currency: United States

Dollars equivalent

Objectives: The main objective of the Technical Cooperation is to develop the

Strategic Environmental Assessment of the area of influence of the Northern Corridor that will link La Paz to Guayaramerín (Brazilian border) and Cobija. The study will define the strategy for sustainable

development of the area.

Execution Period: 12 Months

Timetable: Disbursement Period: 18 Months

Special contractual conditions:

The Bank through RE1/FI1 will select, contract and pay for the consultants or consulting firms involved.

Exceptions to Bank policies and Procedures:

No exceptions to Bank Policy are required.

**Environmental** and social review:

This study is social and environmental in nature. Its goal is to minimize adverse potential impacts and maximize benefits of the opening of the Northern Corridor of Bolivia, within the framework of sustainability and improving the competitiveness of the region.

## II. BACKGROUND AND JUSTIFICATION

- 2.1 The new government of Bolivia has stated its priority as that of promotion of job creation in the country. One of the projects that stand as the backbone of the program is the upgrading and completion of the "Víctor Paz Estenssoro highway". This road will eventually link Brazil's Matto Grosso and Peru towards the North with Argentina towards the South, and will also connect the departmental capitals of La Paz, Beni, Pando, Oruro and Tarija. The linkage of this vast area will improve the region's competitiveness and generate opportunities for job creation mainly in agriculture, forestry and commerce given the linkage to Bolivia's neighboring countries.
- 2.2 The Northern Transportation Corridor from La Paz to Guayaramerín and Cobija is a major section of this highway with more than 1300 km in length. Its completion will require work to be done on several stretches. During the pre-programming mission of the Bank to Bolivia in the month of September 2002, the BO-0200 (Geotechnical and environmental upgrading of Cotapata-Santa Bárbara highway) project was confirmed as a priority by the government and financing for its completion was requested. This project has been included in the pipeline for the period 2003-2004. The government has also requested financing for other stretches of this road and there is a high probability that they will be included in the pipeline for the coming years.
- 2.3 Some sections of the Northern Transportation Corridor are open to traffic but most cannot be used during the rainy season. The future road, that would be open for traffic year round, crosses an area that is characterized by extreme topographical conditions, with a great diversity in climate and geography, and with the presence of numerous indigenous and ethnical minority communities. The identification of fragile human groups and ecosystems will require knowledge of the area and interaction with peoples with deeply rooted cultures that do not speak Spanish. Due to this diversity and complexity, a highway of this nature can't be considered to have local impacts exclusively; the area has to be

- considered as a whole. This is essential to evaluate potential environmental and social impacts throughout the area, in order to address their mitigation properly.
- The main purpose of the Strategic Environmental Assessment (SEA) is to develop 24 the basis for sustainable development of one of the least accessible and most promising regions in Bolivia. The Departamentos of Beni and Pando have the potential for large scale agriculture and managed forestry. This potential can only be achieved with the implementation of adequate programs that will address issues such as land tenure and legal rights of property, inclusion of rural and indigenous populations into the productive economy, the preservation of ecologically sensitive areas, educational programs, sustainable forestry programs, improvement of the institutional capacity of local communities, and the promotion of competitive activities, among others. The SEA study will conceive and develop in detail, an adequate strategic environmental management framework to address all the identified indirect, long term and cumulative potential socioenvironmental impacts of the La Paz - Guayaramerin - Cobija transportation corridor and to examine the sustainable developmental possibilities in the area of influence of the Corridor once access to the area is greatly improved. In order to devise a strategy for development of that area, it is of utmost importance to involve the different stakeholders, including the private sector, in order to maximize the benefits from this development for residents of the project's area of influence, particularly the lower income population and minority groups.
- 2.5 Past experience of the Bank with the Santa Cruz- Puerto Suarez road resulted in a separate loan to Bolivia for 25 million dollars just to manage indirect impacts related to the opening of that Corridor.
- 2.6 The area of influence of the Northern Transportation Corridor is basically that of three whole Departments in Bolivia: La Paz, Beni and Pando, comprising nearly 40% of Bolivia's territory. Beni and Pando have traditionally been remote inaccessible areas with a very important agricultural, trade and forestry potential, besides being the gateway to the Amazon region. The distance between La Paz and Guayaramerín is 1015 km. The distance from this road to Cobija an additional 370 km. Road characteristics vary and certain sections are practically impossible to use during the rainy season. Maintenance for those stretches located in Beni and Pando is more precarious.
- 2.7 The area has an immense diversity starting with the urban areas surrounding the nation's most important city, La Paz, to the humid and mountainous areas of the Yungas, to the Cotapata National Park, to important areas for tourism and research in the Beni flatlands, to the Pilon-Lajas Biosphere reserve, the Madidi Integrated Management Area and Park and the Beni biological station, to several indigenous territories and archaeological sites, and finally reaching the Amazon plateau where the Manuripi Heath national wildlife reserve is found. Along the way there are several important town and small cities including Coroico,

Caranavi, Yucumo, Rurrenabaque, Riberalta, Guayaramerín and Cobija among others.

#### A. Socioeconomic framework

- 2.8 Bolivia's population for the year 2001, was estimated at around 8.3 million with 62.4% residing in urban areas. The per-capita income for that same year was US\$ 940. A series of efforts dating from the late 80s to the present have resulted in economic stability and have set the basis for sustained growth. The most important achievements include inflation reduction, strengthening of balance of payments and growth in net internal product of around 4% per year during the 90s (1.7% per capita). Public deficit stood between 3% and 4% of Gross Domestic Product (GDP) during this same period, with an increment towards the latter years after a pension reform was enacted in 1997.
- 2.9 Bolivia's situation in 2003 contrasts with that of the years 2001-2002 where growth perspectives were around 6%, growth of exports of 6.5% yearly and diminishing fiscal gaps. External and internal conditions have modified the overall picture. Within the external context, the crisis of the region and the diminishing of exportable goods in 10%, have accentuated the negative impact.
- 2.10 Social conflict has been fueled by a growing unemployment rate (6.1% in 1999 vs. 11.6% in 2002), government programs related to the eradication of drug related crops and illegal commerce of goods.
- 2.11 The aggregate impact of these conditions has resulted in a reduction of the growth rate of the economy from 4% in the 90's to 1.3% between 1999 and 2002, situation that becomes critical for a country with 58.6% of its population living in poverty with one of the highest population growth rates in the region. In 2002, the economy grew in 2.5%, representing four years worth of reduction in the income per capita.
- 2.12 Even with economic deceleration, it is notable that Bolivia has been able to maintain positive growth rates, due to the contribution of certain sectors connected to capitalization and modest performance of industry and agriculture.
- 2.13 Public debt has grown from 3.7% of GDP in 2000 to 8.7% in 2002. The main contributing factor to this problem is the cost of pensions representing around 5% of GDP. Excluding pensions, public deficit grew by three points mainly due to a reduction of 60% in gas exports to Brazil. Impact was not even greater thanks to a major government effort to improve tax collection and public spending control.
- 2.14 The development of new perspectives related to the opening of new areas to the economy is an important priority for the government. This task however requires the combined effort of the different stakeholders to make sure it becomes a reality.

## B. The transportation infrastructure sector

- 2.15 Bolivia has a road network with a total length of 11.858 km. 4.065 km are paved; 4.487 km are gravel and 3.305 km earth. Transportation is extremely important for Bolivia, given its mediterranean characteristics. Although the country depends on access routes for its link with the rest of the world, Bolivia has the lowest density of paved roads in the American continent (30%). Bolivia borders five other countries in South America, but its geographic and topographic characteristics have made it very difficult to develop access routes to connect by highway with its neighbors who are also its most important business partners. This constitutes a comparative disadvantage for the marketing of its products at competitive rates.
- 2.16 The government is promoting the construction and improvement of the Víctor Paz Estensoro highway, which will link the major production centers, both in the North-South and East-West directions. The Northern Corridor from La Paz to Guayaramerín constitutes a very important part of this axis that will improve the country's competitiveness standing.

## C. The Bank's country strategy

- 2.17 The Bank's operational strategy in Bolivia seeks to support the efforts of the government in reducing poverty, which include: (i) economic growth and creation of opportunities; (ii) development of human capital and access to basic social services; and (iii) support to governance and consolidation of reforms.
- 2.18 Improvement of the Northern Transportation Corridor within the proposed sustainable framework that will result from the SEA, will support essentially the first component above. Good access to the region through this Corridor will contribute to improve the level of competitiveness, and is therefore related to the first issue. Governance, the third component of the strategy, will also be enhanced by ensuring the participation of civil society in the process, as promoted by the SEA.

## D. The Bank's sector strategy

2.19 The Bank's transportation sector strategy for Bolivia emphasizes integration corridors as part of the Regional Infrastructure Integration in South America (IIRSA) initiative. This study will support the Northern Transportation Corridor from La Paz to Guayaramerín and Cobija, which undoubtedly is a very important project aimed at integrating the Bolivian economy within the country and also linking future exchange with Brazil and Peru.

#### III. PROGRAM DESCRIPTION

## A. Description and objectives

- 3.1 The Northern Transportation Corridor of Bolivia is intended to provide a physical link between La Paz and some of the more remote and underdeveloped areas of the country. This area is isolated during several months each year and transportation costs make it economically unfeasible for produce to reach local or international markets. The area of influence of the Corridor is basically that of three whole Departments in Bolivia: La Paz, Beni and Pando.
- 3.2 Aside impacts that result from construction itself, physical integration projects, such as the Northern Corridor, generate induced and indirect impacts. These long-term cumulative impacts are the result of different social, economic and natural forces that operate at a regional scale. A road corridor, for example, induces new land use and ownership patterns that not always result in a socially equitable tenure. New areas are made available for colonization stimulating land occupation, which in some instances may destroy natural resources and impact existing populations. Usually the impacts are greater upon the weakest sectors of society including indigenous populations and peasants, as well as ecologically sensible areas. An ill planned development will make inefficient use of resources and may become a source of social, cultural and economic impoverishment. In many instances there is also a combined synergic effect with impacts related to other projects in the area.
- 3.3 Similar roads in Brazil have resulted in direct impact to vegetation and ecosystems along a 100 km wide pathway along the road<sup>1</sup>. This impact is not restricted to natural habitats but has generated among other problems: (i) water pollution problems tied to mercury discharges of mining activities; (ii) illegal land appropriation and displacement of indigenous peoples; (iii) health related problems for indigenous and peasant communities; (iv) prostitution; (v) stimulus to illegal crop production; (vi) deforestation; (vii) illegal trafficking of native and endangered species; (viii) increasing forest fires; y (ix) over exploitation of fisheries; and others. In Bolivia, more specific impacts have been identified in regards to land tenure and the impact upon indigenous communities with little or no organizational capacity.<sup>2</sup>
- 3.4 There are however many positive impacts resulting from the opening of such a corridor in Bolivia. The Beni and Pando regions have some of the best soils and forestry areas in the country. The abundance of water and appropriate climatic conditions and other untapped natural resources will be made available and will allow the opening of new areas into the economy. If the improvement of the

<sup>&</sup>quot;Impactos socioambientales probables de la carretera transoceánica (Río Branco-Puerto Maldonado-Ilo) y la capacidad de Respuesta del Perú" Marc Dourojeanni, in Boletín CF + S, No. 19, Marzo 2002, Instituto Juan de Herrera – Madrid.

<sup>&</sup>lt;sup>2</sup> "Evaluación Ambiental Estratégica del Corredor Santa Cruz – Puerto Suárez, Bolivia", Consorcio PRIME Engenharia, Museo Noel Kempff Mercado, Asociación POTLACH Colombia, Julio 2000.

access routes, leading to the area, is accompanied by programs that consider the needs of the local population, such as property rights and the protection of ecologically important areas, there are great opportunities for the corridor to contribute towards future sustainable development and increased commerce.

- 3.5 The identification of these impacts and potentials require: (i) broad knowledge of the area and its communities; (ii) the ability to communicate effectively with existing population, the different Non Governmental Organizations (NGO) and interest groups; (iii) knowledge of local authorities and stakeholder groups; (iv) an understanding of the ecological interrelations of the diverse and complex ecosystems along the way; and (v) experience in promoting all necessary consultations and fora, a taking into account the socioeconomic, ethnical and cultural differences of Bolivia.
- 3.6 Environmental evaluations should not be restricted to the analysis of direct impacts and preparation of environmental management plans, but must provide the tools for defining strategies for sustainable development of areas to be opened by transportation corridors.
- 3.7 The main objective of this Technical Cooperation is to develop a SEA of the Northern Corridor's area of influence that will provide the necessary information for the Government of Bolivia and the multilateral lending institutions, to be able to device a development strategy that will protect the population and natural environment of the area and allow for sustainable growth. The SEA will propose strategies for sustainable development of the northwest part of Bolivia that includes the La Paz, Beni and Pando Departments.
- 3.8 The strategic social and environmental assessment study will lay the basis for establishing a common social and environmental management strategy for the whole Corridor, regardless of the form of financing for any particular portion.
- 3.9 This integrated consultative process, should demonstrate to civil society that the bolivian government and the Bank, are aware of all major socio-environmental issues involved in the project and are interested in addressing them in an adequate and timely fashion, by promoting and ensuring participation of civil society in all stages of project preparation and execution.

## **B.** Program structure

3.10 The study will be carried out by a firm specialized in environmental management and planning to be contracted through an international bidding process. It will consist of four stages. (i) definition of scope and retrieval of existing baseline information. (ii) identification and evaluation of impacts which will include an ample consultation process and collection of any additional information required; (iii) preparation of detailed reports for the Strategic Environmental Evaluation of the direct and indirect areas of influence of the project; (iv) preparation of strategic social and environmental management plans; and (v) consultation and

review of results and presentation of final reports. Interaction with the different stakeholder groups is to be held throughout the study as necessary.

- 3.11 The studies will cover the following specific areas and activities listed as follows:
  - a. design and implementation of a public consultation strategy that ensures an informed, timely and effective participation of all potential stakeholders involved;
  - b. identification of an environmental baseline with all required information at a regional scale regarding the physical, biological, social and economic environments. This baseline will identify protected areas, endangered populations, historically and culturally important territorial distribution, archaeological resources, land tenure, existing pressure upon natural resources, potential sources of conflict, regional and political conditions, ethnical differences, etc.;
  - c. identification of potential impacts upon the direct and indirect areas of influence due to the opening of a corridor that will facilitate access to and from populated areas both in Bolivia and neighboring countries;
  - d. evaluation of the synergy of the project with other major existing or planned infrastructure, industrial, mining, energy or agricultural projects in the region, as well as potential conflicts among these projects;
  - e. prioritization and classification of impacts;
  - f. evaluation (from the environmental and social perspectives) of all project alternatives considered in any existing technical and economic feasibility studies carried out for the different sections of the road;
  - g. evaluation of the appropriateness of the existing institutional and legal framework in Bolivia to address the major issues involved in project preparation, execution and post-construction phases as well as for the implementation of the strategies that are devised by the study;
  - h. identification of opportunities for sustainable regional economic development including the possibility of private sector participation;
  - i. consultation with the different stakeholders and most importantly with representatives of civil society the different aspects identified during the study making sure that cultural differences are considered;
  - j. identification of the benefits that would result from sustainable regional economic development, determining the allocation of these benefits among various groups and among geographical regions, and design of a strategy that ensures that most of the resulting benefits accrue to communities in the project's area of influence;
  - k. preparation of an environmental and social Strategic Plan with all the different programs necessary to promote the sustainable development of the region once the Corridor is opened;
  - identification of institutional and legal risks and constraints that must be overcome in order to implement the strategic plan and proposals to reduce the risks associated.

m. preparation of a final report that shall also include specifications, responsible entities and a budget for all the programs.

## IV. COST AND FINANCING

4.1 The total estimated cost for the study is US\$1,100,000 that will be covered as follows: US\$750,000, through a non-reimbursable financing from the Japan Special Fund (JSF), US\$250,000 equivalent through non reimbursable financing from the net income resources of the Bank's Fund for Special Operations (FSO) and US\$100,000 to be provided in services as local counterpart.

Table IV.1 BUDGET (in US\$)										
	Number of		Cost /		IDB	Local				
Type of Expense	Prof	Months	Month	JSF	SFO	c/part	Total			
Baseline Study							98,500			
Technical Professionals <sup>A</sup>	7	1.5	4,500	47,250						
Support professionals	5	1.5	1,500	11,250						
Direct costs and materials <sup>B</sup>		2	20,000	40,000						
Project description and alternatives	study						42,000			
Tech. Professionals <sup>A</sup>	2	2	4,500	18,000						
Support professionals	3	2	1,500	9,000						
Direct costs and materials <sup>B</sup>	-	2	7,500	15,000						
Strategic Environm. impact identific	cation	•			'		51,000			
Tech. Professionals <sup>A</sup>	4	1.5	4,500	27,000						
Support professionals	4	1.5	1,500	9,000						
Direct costs and materials <sup>B</sup>		1.5	10,000	15,000						
Environmental Management Opera	tional Plan	•			•		84,000			
Tech. Professionals <sup>A</sup>	5	2	4,500	45,000						
Support professionals	8	2	1,500	24,000						
Direct costs and materials <sup>B</sup>		2	7,500	15,000						
Public Consultation Processes							103,500			
Tech. Professionals <sup>A</sup>	3	3	4,500	20,250	20,250					
Support professionals	4	3	1,500	9,000	9,000					
Direct costs and materials <sup>B</sup>		3	15,000	22,500	22,500					
Sub total personnel cost				219,750	29,250					
Sub total Direct costs	107,500	22,500								
Sub total (personnel + direct)				327,250	51,750		379,000			
Overhead: 140% (personnel)				307,650	40,950		348,600			
Other direct costs	Pers/Veh	# trips	Unit cost		,		372,400			
Supervision contract		Î	50,000	23,000	27,000					
Travel Costs (foreign):	16	2	1,500	33,600						
Local accommodations, per diems				50,000						
Other Public Consultation costs <sup>C</sup>					100,000	20,000				
Auditing and Evaluation					25,000					
Other local support				8,500	5,300	80,000				
TOTAL		1		750,000	250,000		1,100,000			

A Engineers, biologists, sociologists, anthropologists, geologists and other professionals

B Transportation, satellite imagery, processing of information, laboratory analysis

C Travel expsenses for locals, translations, etc

#### V. EXECUTING AGENCY AND MECHANISM

## A. Program execution and administration

- 5.1 In order to maximize Bolivia's involvement, the executing agency will be the *Servicio Nacional de Caminos* (SNC). The SNC is an autonomous body responsible for expanding managing and maintaining the primary highway network infrastructure of Bolivia. It has recently undergone an institutional wide reorganization process backed by the World Bank (WB). In terms of this operaton, the SNC will be responsible for the coordination and execution of the Program. It shall assign a qualified professional with experience in the environmental area, to serve as the Local Coordinator for the study.
- 5.2 During execution, the executing agency will be directly responsible for providing follow-up to the study, verifying compliance with the work program and for evaluating and recommending to the Bank the approval or rejection, from a technical standpoint, of partial and final reports. The SNC will also be responsible for providing logistical support whenever needed by the consultant and to assign personnel, as their counterpart, to collaborate with the Local Coordinator and the consultants throughout the study.
- 5.3 The Bank will contract the consulting firm according with its own policies and procurement procedures. The Finance and Basic Infrastructure Division 1 (RE1/FI1) in the Bank, will act as the responsible unit for this consultancy and will be responsible for the publishing of requests for proposals, short listing of proponents and final qualification and selection of the consulting firm. The Bank's Country Office in Bolivia (COF/CBO) and the SNC will participate in the qualifying and selection process.
- 5.4 RE1/FI1 will provide follow-up and will be responsible for technical supervision of the SEA in coordination with COF/CBO and SNC. RE1/FI1 will process and authorize payments given preliminary approval by COF/CBO that will be the unit of the Bank responsible for field supervision.

#### B. Execution and disbursement schedule

5.5 The study will be carried out during a one-year period. Disbursement will be carried out during a period not to exceed 18 months.

#### VI. PROGRAM BENEFITS AND RISKS

## A. Institutional viability and risks

6.1 The SNC is undergoing an institutional strengthening process, which resulted in the establishment of a post for a social and environmental manager and additional

- staff to overview the implementation of adequate environmental standards for the projects under its management. As a result, the SNC currently has the technical capacity to supervise the proposed study.
- 6.2 However, existing risks for a successful hiring process and consequently an adequate level of quality in the study are related to: (i) the lack of adequate staffing and resources at the SNC for awarding of the contract and to provide support and follow up on the consultants that will be in charge of developing the study; (ii) possible access restrictions to existing information (previous studies, designs, etc) by the contractor; and (iii) the risk that participation of civil society in the consultation process will not be as extensive as required.
- 6.3 Having the IDB in charge of the awarding process will mitigate the first risk given its experience and efficiency in doing so. The second risk will be mitigated through close coordination between the Bank and the SNC for the execution of the study. The last risk is mitigated by specific requirements included in the Terms of Reference for the study, and the fact that they have been made available to the public beforehand for ample consultation.
- 6.4 The viability of the study will be enhanced through the Bank's direct involvement due to its higher degree of efficiency and experience in managing all the different processes necessary for contracting of consulting services.

## B. Socioeconomic viability and risks

Participation of civil society is of great importance for the success of the whole process. There exists a risk that participation will not be as extensive as required. With the intention of mitigating this risk, the terms of reference for the study are being made available to the public even before the firms are invited to bid. Specifying conditions that guarantee effective participation of civil society and making provisions to ensure that ethno-cultural differences are considered throughout the process, as part of the Terms of Reference for the SEA, will help reduce the risk.

## C. Coordination with other Multilateral Development Institutions

6.6 Considering that the SEA will result in the identification of a common framework for sustainable development in the region, it is important that future projects to be developed in that area be designed in such a manner that they will all contribute towards the same goals. This will require close coordination with other multilateral finance institutions, especially the WB and the *Corporación Andina de Fomento* (CAF). The process is to be continuous and has already begun, via discussions of the terms of reference. The coordination is to be an on-going process that should continue as a result of the study after its completion.

## D. Beneficiaries

6.7 The direct beneficiary of the grant will be the SNC. Besides, the study is expected to benefit all the different stakeholders, including the weakest groups of the *Departamentos* of La Paz, Beni and Pando, with the development of a framework intended to aid in sustainable development for the region.

## VII. ENVIRONMENTAL AND SOCIAL REVIEW

7.1 This study is social and environmental in nature. Its goal is to minimize adverse potential impacts and maximize benefits of the opening of the Northern Corridor of Bolivia, within the framework of sustainability and improving the competitiveness of the region.

## ANNEX I

## LOGICAL FRAMEWORK MATRIX

## Strategic Environmental Assessment Evaluation of the Northern Corridor of Bolivia

	Strategic Environmental Assessment Evaluation of the Northern Corridor of Bolivia (TC-0210054-BO)							
	OBJECTIVES	RISKS						
	Goal:	INDICATORS	VERIFICATION MEANS	MSRS				
	Contribute to define a sustainable development plan for the northern region of Bolivia and the Departamentos of Beni and Pando							
	Outcomes:	L						
	The Bolivian Government and multilateral finance institutions will have a practical decision tool that will aid their efforts to promote sustainable development in Bolivia.	Sustainable Development Plans, Environmental and Social Programs		Political will exists to implement the strategic plans resulting from the study.				
	Outputs:							
1	Stakeholders were consulted	Number of public hearings carried out.	Signatures, photographs, records, annexes to the report	Multilateral aid and credit institutions support the implementation of the strategic plan.				
2	The socio-environmental baseline includes information on other projects planned for the area and their synergy with the opening of the corridor.	Quality and quantity of information analyzed	Baseline reports of the area of influence including geophysical, biological, social and economic information.					
3	Different route alternatives were properly considered and compared	Analysis of alternative routes and recommendations was done for different stretches	Alternative route analysis report					
4	Negative and positive impacts at a regional level and feasible mitigation measures were analyzed properly. Mechanisms and opportunities for sustainable development were defined.	Quality and coverage of Evaluation matrices and methodologies	Reports					
5	A strategic plan defining programs, responsibilities and necessary resources was prepared.	Scope of the programs is adequate	Reports					
6	Bottlenecks, legal, institutional, political, technical and social risks were adequately analyzed.	Issues are sufficiently analyzed	Reports					
7	The resulting strategy was discussed with the different stakeholders.	Number of public hearings carried out	Signatures, photographs, records, annexes to the report					
8	The final report with a proposal for strategic development of the area was prepared and accepted by the Bolivian authorities and the Bank.	Plan is deemed acceptable by authorities and the Bank	Project records and payment confirmation					
ļ								
	Inputs:	T						
	See Budget			Civil society participates effectively				
				The SNC and other entities support the team in charge of the study and provide adequate information				